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(54) Title: GFP-TRANSFECTED CLON PIG, GT KNOCK-OUT CLON PIG AND METHODS FOR PRODUCTION THEREOF



(57) Abstract: Disclosed are a cloned pig expressing green fluorescent protein (GFP) and a cloned pig having a 1,3-galactosyltransferase (GT) gene knocked out. Also, the present invention discloses methods of producing such cloned pigs, comprising the steps of establishing a somatic cell line; preparing a GFP-transfected or GT gene knock-out nuclear donor cell; producing a transgenic nuclear transfer embryo using the nuclear donor cell and a recipient oocyte; and transplanting the transgenic nuclear transfer embryo into a surrogate mother pig. The cloned pig expressing GFP of the present invention is useful for large-scale production of an animal disease model, and the GT gene knock-out cloned pig can be used as a organ donor allowing xenotransplantation in humans without hyperacute immune rejection.

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